CLAIMS

1. An apparatus configured to pleasingly display a flowing liquid, said apparatus comprising:

a reservoir for accommodating a volume of liquid;

a plenum mounted above said reservoir and configured to accumulate a liquid pool;

a pump operable in a pump-on mode to pump liquid upwardly from said reservoir to form said liquid pool in said plenum;

a visually open flow pathway sloping downwardly from beneath said plenum and configured to receive liquid from a plenum overflow for return to said reservoir; and

a controller for alternately defining a pump-on mode and a pump-off mode, said controller including a detector for defining said pump-off mode in response to the liquid level in said reservoir being less than a first height mark and for preventing definition of said pump-on mode unless the liquid level in said reservoir is greater than a second height mark.

2. The apparatus of claim 1, wherein said reservoir includes at least one peripheral window for viewing the reservoir liquid level from outside said reservoir.

3. The apparatus of claim 1, wherein said liquid flow pathway includes a ramp portion adapted to support a substantially smooth sheet liquid flow.

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4. The apparatus of claim 3 wherein said ramp portion includes spaced lateral ridges for creating ripples in said sheet liquid flow.

5. The apparatus of claim 1 wherein said flow pathway includes a substantially convex surface portion adapted to support a substantially smooth sheet liquid flow.

6. The apparatus of claim 1 wherein said flow pathway includes a substantially concave surface portion adapted to support a substantially smooth sheet liquid flow.

7. The apparatus of claim 1 wherein said detector includes a first switch mounted proximate to said first height mark and a second switch mounted proximate to said second height mark.

8. The apparatus of claim 7 wherein said detector further includes at least one switch actuator configured to float proximate to the liquid level in said reservoir.

9. The apparatus of claim 8 wherein said controller is responsive to said first and second switches to define said pump-off mode when said liquid falls below said first height mark and to subsequently define said pump-on mode only after said level rises above said second height mark.

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10. The apparatus of claim 8 wherein said switch actuator comprises a magnet.

11. The apparatus of claim 10 wherein at least one of said switches is responsive to a magnetic field proximate thereto.

12. The apparatus of claim 1 further comprising a housing having wall portions substantially converging upwardly above said reservoir.

13. The apparatus of claim 12 wherein said housing wall portions are substantially planar and define interior and exterior surfaces; and wherein said reservoir and said wall portion interior surfaces are sealed to prevent liquid leakage therebetween.

14. The apparatus of claim 13 further including at least one decorative panel mounted on a wall portion exterior surface.

15. The apparatus of claim 1 wherein said liquid flow pathway includes a light transmissive portion.

16. The apparatus of claim 15 further comprising at least one light source for illuminating said liquid flow through said light transmissive portion.

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17. The apparatus of claim 16 wherein said at least one light source includes a light emitting diode (LED) mounted in said reservoir and sealed in a waterproof housing.

18. The apparatus of claim 15 further comprising a plurality of light sources adapted to illuminate said liquid flow in a variety of colors through said light transmissive portion.

19. The apparatus of claim 1 further including at least one light source energizable to illuminate said liquid flow pathway; and

a controller for variably energizing said light source to simulate a flame flicker.

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20. An apparatus configured to pleasingly display a flowing liquid, said apparatus comprising:

a reservoir for accommodating a volume of liquid;

a visually open flow pathway having an upstream end and sloping downwardly to a downstream end proximate to said reservoir;

a pump operable to pump liquid upwardly from said reservoir to said upstream end; and

a controller for switching said pump off in response to the liquid level in said reservoir falling below a first height mark and for preventing resumption of pump operation unless the liquid level in said reservoir rises above a second height mark greater than first height mark.

21. The apparatus of claim 20 wherein said reservoir includes at least one peripheral window for viewing the reservoir liquid level from outside said reservoir.

22. The apparatus of claim 20 wherein said controller includes first and second level detectors respectively mounted adjacent to said first and second height marks.

23. The apparatus of claim 22 further including an actuator configured to float proximate to the surface of the liquid in said reservoir; and wherein

each of said first and second detectors is responsive to the proximity of said actuator.

24. The apparatus of claim 22 wherein said actuator comprises a magnet and each of said first and second detectors comprises a reed switch.

25. The apparatus of claim 22 further including at least one substantially vertically oriented guide member mounted in said reservoir;

a substantially toroidal float mounted for vertical movement along said guide member; and wherein

said actuator is mounted on said float.

26. The apparatus of claim 25 wherein said actuator comprises a magnet and each of said first and second detectors comprises a reed switch.

27. The apparatus of claim 26 wherein said guide member comprises at least one tubular member; and wherein

at least one of said reed switches is mounted in said tubular member.

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28. An apparatus configured to pleasingly display a flowing liquid, said apparatus comprising:

a liquid reservoir;

a pump coupled to said reservoir for pumping liquid upstream to a plenum configured to form a substantially still liquid pool, said substantially still liquid pool adapted to overflow onto an upstream end of a visually open flow pathway configured to return said liquid overflow to said reservoir; and

a pump controller adapted to prevent said pump from running dry.

29. The apparatus of claim 28 wherein said reservoir includes at least one peripheral window for viewing the reservoir liquid level from outside said reservoir.

30. The apparatus of claim 28 wherein said flow pathway includes a ramp portion adapted to support a substantially smooth sheet liquid flow.

31. The apparatus of claim 30 wherein said ramp portion includes spaced lateral ridges for creating ripples in said liquid sheet flow.

32. The apparatus of claim 28 wherein said flow pathway includes a substantially convex surface portion and a concave surface portion adapted to support a substantially smooth sheet liquid flow.

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